

REMARKS

Claims 1-25 were originally filed in the present application. Claims 1-9 were subsequently canceled without prejudice or disclaimer, and new claims 26-34 were subsequently added. Thereafter, claims 25, 30 and 31 were canceled without prejudice or disclaimer, and new claims 35-37 were added. Currently, no claims are canceled or added. Accordingly, claims 10-24, 26-29, and 32-37 are currently pending in the present application.

Applicant notes with appreciation the Examiner's indication of allowance of claims 10-23 and 32-34, and the allowability of claim 28.

The Examiner has not indicated that claims 35-37 have been rejected over the art of record or are otherwise not in condition for allowance. Consequently, Applicant assumes these claims are also allowed.

Reconsideration of this application in light of the following remarks is requested.

Rejection Under 35 U.S.C. §102

Claims 24, 26, 27 and 29 have been rejected under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent Application Publication No. 2005/0255714 of Iyer, et al. ("Iyer"). However, the filing date of Iyer is June 14, 2005, which is after October 29, 2003, the filing date of the present application. Moreover, Iyer is a continuation-in-part of U.S. Patent Application No. 10/741,417 ("the '417 application") filed on December 19, 2003, which is also after the filing date of the present application. However, the '417 application is a continuation-in-part of U.S. Patent Application No. 10/327,467 ("the '467 application") filed on December 20, 2002, which is before the filing date of the present application. As provided in MPEP §2136.03 IV, in order to carry back the 35 U.S.C. §102(e) critical date of Iyer to the filing date of the '467 application (Iyer's grandparent application), the '417 application and the '467 application must each support the invention claimed in Iyer, as required by 35 U.S.C. §112.

In this context, however, the '417 application does not disclose a plurality of isolation regions, wherein a portion of each isolation region comprises carbon nitride, recited in claim 24 of the present application. To support the rejection of claim 24, the Examiner cited paragraphs 12, 13, 40, 57, and 58 and claims 9, 28 and 29 of the '417 application. The cited paragraphs and claims of the '417 application only disclose forming a layer of silicon nitride over a substrate and then treating the silicon nitride layer to remove carbon contaminants inadvertently deposited as a result of the carbon content of the

silicon/nitrogen source gas(es). The resulting silicon nitride layer has a carbon concentration of less than 5%. This is not the same as an isolation region comprising carbon nitride, as recited in claim 24 of the present application.

Furthermore, the carbon-containing silicon nitride layer described in the '417 application explicitly does not comprise carbon nitride, as required by claim 24. That is, such as literally described in paragraphs [0007] and [0040], the '417 application teaches a silicon nitride layer comprising Si-C bonds, Si-H bonds, and N-H bonds. Thus, the carbon existing in the silicon/nitrogen source gas(es) only bonds with the silicon, and not with the nitrogen. Consequently, the resulting carbon-containing silicon nitride layer may include silicon carbide, but it does not include carbon nitride, as required by claim 24.

Thus, the '417 application fails to support the disclosure of Iyer, at least in the context of claim 24 of the present application.

The Examiner also cited claims 10, 42 and 43 of the '467 patent to support the rejection of claim 24. However, like the '417 application, the '467 application also only disclose forming a silicon nitride layer comprising silicon carbide, and not comprising carbon nitride.

Thus, neither the '417 application nor the '467 application discloses a plurality of isolation regions, a portion of which comprises carbon nitride, as recited in claim 24 of the present application. As noted above, MPEP §2136.03 IV states that in order to carry back the 35 U.S.C. §102(e) critical date of Iyer to the filing date of the '467 application (Iyer's grandparent application), the '417 application and the '467 application must support the invention claimed in Iyer, as required by 35 U.S.C. §112. However, because neither the '417 application nor the '467 application supports a plurality of isolation regions, a portion of which comprises carbon nitride, the §102(e) critical date of Iyer cannot be carried back to the filing date of the '467 application. Therefore, Iyer's effective date as a §102(e) reference, at least with regard to claim 24 of the present application, remains as June 14, 2005.

Thus, Iyer's effective date as a §102(e) reference is later than the filing date of the present application, such that Iyer is disqualified as a §102(e) reference with regard to claim 24 and its dependent claims. Therefore, Applicant respectfully requests the Examiner withdraw the rejection.

Application No. 10/696,254
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Conclusion

It is believed that all matters set forth in the Final Office Action have been addressed, and that all of claims 10-24, 26-29, and 32-37 are in condition for allowance. Favorable consideration and an early indication of the allowability of the claims are respectfully requested. Should the Examiner deem that an interview with Applicant's undersigned attorney would expedite consideration, the Examiner is invited to call the undersigned attorney at the telephone number indicated below.

Respectfully submitted,



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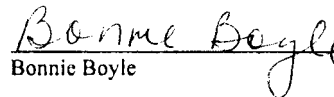
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